



MINISTRY OF ENVIRONMENT  
AND TOURISM



# MONGOLIA'S REDD+ SAFEGUARD INFORMATION SYSTEM: PROPOSED STRUCTURE, FUNCTIONS AND ROLES

Volume 1: Main Report

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## Acronyms

ALAMGAC	Administration of Land Affairs Management, Geodesy and Cartography
CCPIU	Climate Change Project Implementation Unit
CoP	Conference of the Parties
CSO	Civil Society Organisations
DCCIC	Department of Climate Change and International Cooperation
DPFC	Department of Forest Policy Coordination
EIC	Environment Information Centre
FRDC	Forest Research and Development Centre
FRL/FREL	Forest Reference Level / Forest Reference Emission Level
FUG	Forest User Group
GCF	Green Climate Fund
MECC	Mongolian Environment Civil Council
MET	Ministry of Environment and Tourism
M&E	Monitoring and evaluation
NEMA	National Emergency Management Authority
NGO	Non-government Organisation
NSO	National Statistical Office
PaMs	Policies and measures
PLRs	Policies, laws and regulations
REDD+	Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks
SDGs	Sustainable Development Goals
SIS	Safeguard information system
SOI	Summary of Information
SSIA	State Specialised Agency for Inspection
TWG-S&SIS	Technical Working Group on Safeguards and SIS
UNEP-WCMC	UN Environment World Conservation Monitoring Centre
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and forest Degradation (REDD+) in developing countries

## 1. Introduction

This report presents the design elements and options for the development of Mongolia's first REDD+ safeguard information system (SIS). These design elements have been developed through both consultations with key partners and stakeholders, as well as desk-based assessments and analysis.

### 1.1 REDD+ in Mongolia

Mongolia launched its UN-REDD Mongolia National Programme in 2015. The overall goal of this Programme is to support the Government of Mongolia in designing and implementing a national REDD+ strategy and in meeting the requirements under the United Nations Framework Convention on Climate Change (UNFCCC) Warsaw Framework for REDD+.

The 2013 Warsaw Framework for REDD+ consists of four elements:

1. A National Strategy or Action Plan;
2. A National Forest Reference Emission Level and/or Forest Reference Level or, if appropriate, as an interim measure, subnational forest reference emission levels and/or forest reference levels;
3. A robust and transparent National Forest Monitoring System for monitoring and reporting; and,
4. A system for providing information on how the seven safeguards are being addressed and respected and submit the Summary of Information on safeguards before they can received results-based financing.

Mongolia has carried out activities to build REDD+ readiness, including: identifying drivers of deforestation and forest degradation; developing a proposed REDD+ National Program; preparing and submitting a forest reference level (FRL); designing a national forest monitoring system (NFMS); and developing a national safeguards framework, which has included developing the foundations for its SIS<sup>1</sup>.

Mongolia is currently preparing its REDD+ National Program, which will set out the policies and measures (PaMs)<sup>2</sup> that the country will undertake as part of REDD+ implementation, as well as information on the other Warsaw Framework elements.

### 1.2 Safeguards and requirements related to SIS

In preparation for REDD+ implementation, and as an effort to reduce potential negative impacts and enhance potential benefits from REDD+ actions, the Cancun Agreements (Decision 1/CP. 16) of the UNFCCC call upon developing countries to address and respect a set of seven safeguards, known as the Cancun Safeguards (see Annex 1).

The UNFCCC requirements on REDD+ safeguards, agreed by the Conference of the Parties (CoP), can be summarised as follows:

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<sup>1</sup> Further information on Mongolia's safeguards related work can be accessed here: <http://www.unredd.net/announcements-and-news/2592-safeguards-country-resource-hub.html>; [www.reddplus.mn](http://www.reddplus.mn).

<sup>2</sup> REDD+ actions are known in Mongolia as 'policies and measures' (PaMs).

1. Promote and support the Cancun safeguards throughout the implementation of REDD+ actions, regardless of the source and type of funding<sup>3</sup>;
2. Develop a system for providing information on how the Cancun safeguards are being addressed and respected (i.e. a 'safeguards information system' - SIS)<sup>4</sup>; and
3. Provide summaries of information on how all the Cancun safeguards are being addressed and respected throughout the implementation of REDD+ actions<sup>5</sup>.

The development of a SIS is therefore a requirement for REDD+ under the UNFCCC, and a prerequisite for results-based payments. Further UNFCCC guidance on SIS was provided in the 2011 Durban decision (Box 1).

**Box 1: UNFCCC guidance on REDD+ safeguard information systems**

According to UNFCCC Decision 12, CoP 17, '...systems for providing information on how the safeguards...are addressed and respected should, taking into account national circumstances and respective capabilities, and recognising national sovereignty and legislation, and relevant international obligations and agreements, and respecting gender considerations:

- a) Be consistent with the guidance [on policy approaches and positive incentives on issues relating to REDD+]...;
- b) Provide transparent and consistent information that is accessible by all relevant stakeholders and updated on a regular basis;
- c) Be transparent and flexible to allow for improvements over time;
- d) Provide information on how all of the safeguards...are being addressed and respected;
- e) Be country-driven and implemented at the national level;
- f) Build upon existing systems, as appropriate.'

*Source: UNFCCC Decision 12/CP.17, paragraph 2*

### 1.3 Structure of the report

This report consists of two volumes. Volume 1 consists of four main sections, covering the following context: the general steps associated with the development of a SIS; the specific design elements proposed for Mongolia's first SIS; operational requirements and resources for this first SIS; and a summary of recommendations and next steps.

Volume 2 of this report consists of annexes that present: the Cancun safeguards; the proposed information needs and content/indicators for Mongolia's SIS; and the outcomes from workshops and consultation on SIS design.

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<sup>3</sup> UNFCCC Decision 1/CP. 16, paragraph 69.

<sup>4</sup> UNFCCC Decision 1/CP. 16, paragraph 71 (d); Decision 9/CP.19 paragraph 3.

<sup>5</sup> UNFCCC Decision 12/CP.17, paragraph 3; Decision 9/CP.19, paragraph 4.

## 2. Designing a safeguard information system for Mongolia

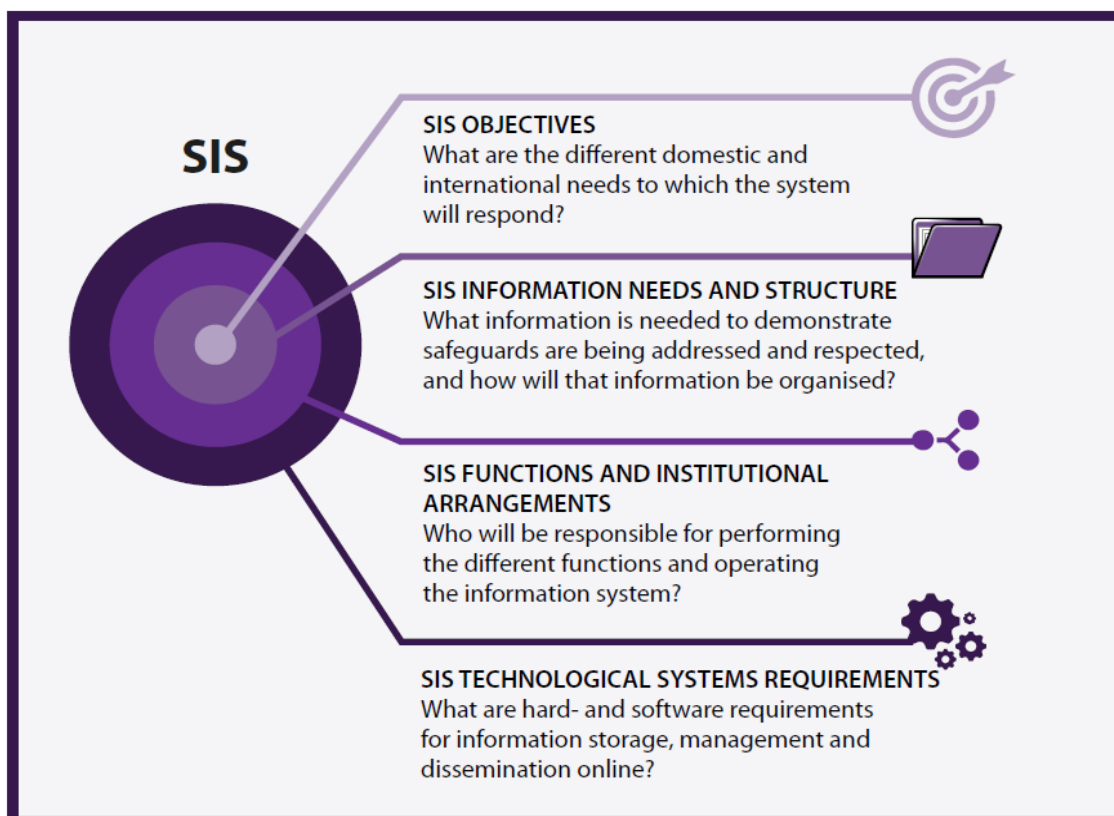
There is a recognition that REDD+ safeguards approaches need to be designed to meet the unique needs and national circumstances of specific countries. Components of a country approach to safeguards include three core elements<sup>6</sup>:

1. Policies, laws and regulations (PLRs) in the country that address the safeguards;
2. Institutional mandates, procedures and capacities to ensure that the relevant PLRs are being implemented; and
3. A safeguards information system (SIS) that makes information available on how REDD+ safeguards are being addressed and respected.

Mongolia has used a step-wise and iterative method to develop its approach to the REDD+ safeguards and its SIS. It builds on existing PLRs, institutions and information systems as far as possible, and allows Mongolia to meet international safeguards requirements, in harmony with national goals. Information on Mongolia's safeguards framework is set out in its National Safeguards Framework document (available on [www.reddplus.mn](http://www.reddplus.mn)).

The UN-REDD Technical Brief for the design of SIS<sup>7</sup> indicates that country experiences to date have focused on four key design considerations, as shown in Figure 1.

**Figure 1: Key design considerations for REDD+ safeguards information systems**



<sup>6</sup> UN-REDD Programme (2016) Concept Brief: Country Approaches to Safeguards.

<sup>7</sup> UN-REDD Programme (2017), REDD+ Safeguard Information Systems: Practical Design Considerations. Technical Brief Version 2.0. Geneva.

These design considerations were the starting point for key steps in the SIS design process in Mongolia. They have been undertaken by key partners and stakeholders of the UN-REDD Mongolia National Programme during 2017 and 2018, in a process led by the national Technical Working Group on Safeguards and SIS (TWG-S&SIS). Although similar to the design considerations set out in UN-REDD Programme guidance, more attention was paid to determining institutional roles and functions in the Mongolia process, as a number of key agencies and institutions are expected to play significant roles in the SIS. The remainder of this section describes the process steps to be followed. Section 3 sets out the specific design elements proposed for Mongolia's first SIS.

### ***Step 1: Determining SIS objectives***

The default objective for a SIS, stated under the UNFCCC, is to demonstrate that the Cancun safeguards are being addressed and respected throughout REDD+ implementation<sup>8</sup>. Countries may also identify additional objectives for their SIS, such as meeting the requirements of other funders for REDD+ in the country.

### ***Step 2: Assessing information systems and sources***

UNFCCC guidance on SIS encourages countries to build on existing systems and sources of information relevant to safeguards as far as possible. When building on existing systems, the content, operation and institutional mandates of existing information systems and sources needs to be reviewed to assess whether they cover the desired SIS objectives and functions. New institutional arrangements, such as information-sharing agreements among institutions that could contribute to the SIS, or new monitoring processes, might be considered to address any gaps.

### ***Step 3: Determining information needs and structure***

Determining what information is needed to demonstrate that safeguards have been addressed and respected has been an important consideration for countries progressing with their SIS designs. Essential information needs can be determined through an approach that combines:

- a) the national clarification of the safeguards;
- b) an assessment of the country's PLR frameworks that are used to address and respect the safeguards; and
- c) understanding the potential benefits and risks of REDD+ actions.

Once information needs have been identified, a SIS information structure can be developed to meet those needs, and further indicators or parameters developed if desired. Here, 'structure' refers to how the information will be organised within the SIS, which will help determine how information is compiled, managed, accessed and disseminated. This involves reviewing existing information systems and sources to assess whether they cover the desired SIS objectives.

### ***Step 4: Determining institutional roles, functions and arrangements***

Determining institutional arrangements sets out what the SIS will do and who will be responsible for making the system work. The assessment of existing information systems and sources and the information needs and structure can inform the assigning of roles and responsibilities to different institutions, along with an understanding of the likely functions of the system, as shown in Figure 2

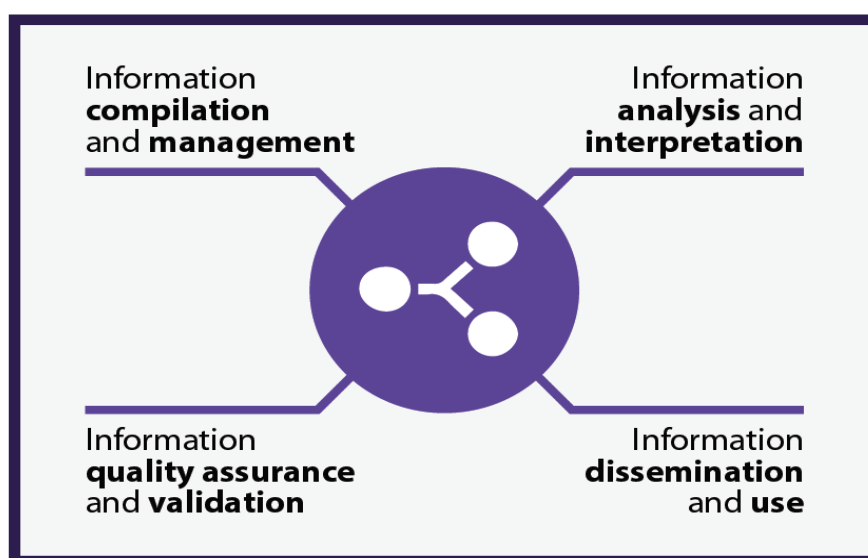
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<sup>8</sup> "Address" is defined as: the governance arrangements - including policies, laws, regulations and the institutions, information systems, etc. - to deal with safeguards, are in place (on paper). "Respect" is defined as: how governance arrangements are being implemented and affect real and positive outcomes on the ground (in practice). See also Box 2.



(e.g. collecting data, analysing data, reporting). New institutional arrangements, such as information-sharing agreements, might need to be considered to feed information from multiple institutions and systems into a single national SIS. The role of non-state actors – civil society, ethnic minorities and local communities, as well as the private sector – could complement public institutional mandates and capacities to perform different functions within the SIS. Where some information requirements cannot be met, novel information solutions may need to be found to close those gaps.

**Figure 2: Possible functions of a REDD+ safeguards information system**



### **Step 5: Operational requirements**

The last step involves assessing the needs – including in terms of financial and human resources, capacity development, and technological requirements – to operationalise the SIS. Few countries have completed this step to date and thus there are few comprehensive analyses of the technical and technological requirements for operationalisation of an SIS (for example, should particular expertise or computer equipment be required). Several issues should be considered at this stage, including:

- Database design: how will the information be structured, how will different types of information (e.g. narrative, statistical, spatial) be integrated?
- System requirement specifications: what are the expected functions of the system? What technological solutions are needed to deliver these functions?
- Storing and managing data: is additional hardware required? Where will the system be housed/maintained?
- Solutions for disseminating information: what kind of online interface (if any) is needed? What outputs can be produced or accessed by users? Are other channels needed to make information more accessible?
- Links to existing platforms and systems: for example, should the SIS be linked to a National REDD+ Monitoring Framework, the NFMS, or existing websites?

### 3. Mongolia's SIS design elements

#### 3.1 SIS objectives

As indicated in Section 2, the first step in the design of Mongolia's SIS was the determination of its objectives. The main question that needs to be answered is: what are the different domestic and international<sup>9</sup> needs to which the system will respond? The default need is meeting the UNFCCC requirements to obtain payments for results under REDD+. This means providing information on how all of the seven Cancun safeguards are being addressed and respected (see Box 2 below) throughout the implementation of REDD+ activities. However, some countries have considered additional objectives for their SIS, which consider commitment that have been made to other donors financing REDD+ implementation or providing results-based payments, as well as other national reporting objectives that may benefit from the SIS.

The objectives for the Mongolian SIS were discussed at a workshop, held during 25-28 March 2018 (please see Annex 3.1 in vol. 2 of this report).

#### **Box 2: Address and respect**

Although not defined by the UNFCCC, it is commonly agreed that safeguards are **addressed** through the existence, on paper, of a coherent body of governance arrangements – policies, laws, and regulations (PLRs), processes and institutional arrangements – covering the environmental and social considerations relevant to the REDD+ PaMs of a country.

Safeguards are commonly understood to be **respected** through the effective implementation, in practice, of these PLRS and processes, together with the resulting outcomes of their implementation.

It was agreed that the Mongolian SIS should be developed in a phased process, in line with the phases of the proposed REDD+ National Program:

#### **Phase 1 (2019-2020):**

- Provide information on the how the Cancun Safeguards are being addressed and respected;
- Meet requirements for receiving results-based payments from REDD+; and
- Support the implementation of the State Policy on Forest.

#### **Phase 2 (2021-2024):**

- Provide information on implementation of the Cancun and other relevant safeguards (e.g. for other funders, such as the Green Climate Fund), and as related to all relevant programmes on climate change adaptation and mitigation in the forest sector (supporting Mongolia's Nationally Determined Contribution to the Paris Agreement).

In addition, it was decided that other key principles of the SIS, although not 'objectives' *per se*, should include the following:

- The SIS should improve access to, and application of, information;

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<sup>9</sup> Here the term "international" refers to the potential requirements of multi-lateral funds and conventions, such as the World Bank, the Green Climate Fund, the Asian Development Bank, and the UN Framework Convention on Climate Change.

- Mongolia should ensure that the SIS is sustainable in the long term;
- The SIS should be an integrated cross-sectoral information system; and
- It should use an online platform, which incorporates spatial information.

### 3.2 Determining information needs and structure

Determining information needs and structure is the second step in the Mongolian approach to the design of a SIS. The SIS is expected to provide information on how the Cancun safeguards are being addressed and respected. This activity consists of two “sub-steps”: the determination of information needs; and the assessment of existing information systems and sources.

#### 3.2.1 Determination of information needs

The process undertaken to identify relevant types of information is usually referred to as the identification of *SIS information needs*.

In Mongolia, a set of SIS information needs was developed with inputs from the Technical Working Group, based on the work carried out to define the national safeguards framework. Key determinants of the information needs are: the national safeguards clarification ([English, Mongolian](#)), which forms the underlying structure of Mongolia’s SIS design; the review of safeguards relevant PLRs ([English, Mongolian](#)); and an understanding of the potential benefits and risks<sup>10</sup> of REDD+ ‘policies and measures’ (PaMs) in the draft REDD+ National Program. Table 1 below provides an example, showing the proposed information needs and possible indicators developed for one safeguard element under Safeguard D. The full table of identified information needs is provided in Annex 2.

**Table 1: Example of Information Needs for a Safeguard D Element**

Mongolia Safeguard D Element	Proposed information needs	Proposed indicators)
D1. During design and implementation, REDD+ PaMs should identify and define relevant stakeholders, which depending on the PaM, may include local self-governing authorities, administrations for Protected Areas and Watersheds, local people, resource user groups, civil society organisations and associations, herders, economic entities and other actors in the private sector. Identification of relevant stakeholders shall consider the legitimacy of any bodies representing these stakeholders, in accordance with relevant policies, laws and regulations.	<b>Address:</b> D1.1. Relevant stakeholders in the context of REDD+ in Mongolia.	List of relevant stakeholders (based on relevant PLRs, NRP, stakeholder mapping, etc)
	<b>Respect:</b> D1.2. Information on process of identification of relevant stakeholders for REDD+ and their representative bodies, in line with any relevant PLR provisions	<ul style="list-style-type: none"> <li>• Description of how stakeholders were identified, i.e. what processes/mechanisms, e.g.:               <ul style="list-style-type: none"> <li>- Reference to PLRs</li> <li>- Stakeholder mapping</li> <li>- Stakeholder engagement handbook</li> <li>- Organisational mandates</li> </ul> </li> </ul>

<sup>10</sup> Mongolia REDD+ benefits and risks assessment, August 2017. (Background report: [English, Mongolian](#); Assessment tables: [English, Mongolian](#)).

### 3.2.2 Assessment of information systems and sources

The next sub-step was to assess existing information systems and sources, based on the draft list of information needs. This work took place between February and June 2018. It consisted of the following components:

- i. Drafting a list of potential information systems and sources;
- ii. Development of a template for the information assessment, based on the national REDD+ safeguards clarification; and
- iii. Completing a template, based on literature review, meetings with relevant agencies and organisations, and discussions with stakeholders during a workshop in March 2018.

The proposed information structure for the SIS is based on each safeguard element of the national clarification; the information needs then identify what information would be needed to show that Mongolia is addressing and respecting those safeguard elements. The information sources that will help Mongolia to meet those information needs are then identified, along with areas for improvement.

As the SIS is required to cover each of the Cancun safeguards, the Mongolian approach structures information according to a safeguard-by-safeguard summary. Within the future SIS, reported information will likely take the form of narrative text, figures, and/or spatial data. Descriptive parameters and indicators to guide the collection and compilation of information on how safeguards are addressed and respected were also drafted in 2018, based on the final, agreed safeguards clarification and information needs, and informed by the content of available data.

An example of information systems and sources associated with a selected safeguard element and its information needs is outlined in Table 2.

**Table 2: Example from assessment of information systems and sources for Safeguard E information needs**

Mongolia Safeguard E Element	Information Needs (Respect)	Information System/Sources	Gaps/Challenges
E3. REDD+ PaMs should be designed and implemented to conserve natural forests and minimise their degradation, including through the creation and implementation of appropriate incentive measures and accountability of forest users.	E3.3. Information on implementation of forest conservation and incentives for conservation/sustainable use as relevant to REDD+ nationally	<p><u>Forest Inventory Database's report on OM7 form (<a href="http://www.eic.mn">www.eic.mn</a>):</u></p> <ul style="list-style-type: none"> <li>- OM-7 form includes report of disbursement for forest activities. Report covers income and disbursement in regards forest restoration, protection, trainings, purchase of equipment.</li> </ul> <p><u>Report of the Forest Policy &amp; Coordination Department:</u></p> <ul style="list-style-type: none"> <li>- Number of entities that received reward, volume of the reward.</li> <li>- Report produced once a year, at national level. This should be based on the Regulation on Rewarding.</li> <li>- Amount of reward, number of forest user groups, number of management plans, number of measures, size of</li> </ul>	<p>REDD+ M&amp;E framework still under development.</p> <p>How will new regulation on incentives for reporting illegal logging be monitored?</p>

		<p>managed forest, ha/yearly, at national level</p> <p><u>REDD+ M&amp;E reports</u> may provide information on incentives provided in the future.</p>	
	<p>E3.4. Information on the implementation of processes and PaMs in NRP for forest conservation and incentives for conservation/sustainable use</p>	<p><u>Report on Action Plan</u> by the Department of Forest Policy and Coordination (DFPC), MET.</p> <p><u>Forest resource database's OM forms</u> (<a href="http://www.eic.mn">www.eic.mn</a>):</p> <ul style="list-style-type: none"> <li>- Data on forest inventory coverage and its change within the given year is processed at provincial and sub-provincial level.</li> <li>- OM -1 form is quantitative report. Forest entity activity report (OM -4) form is also a quantitative report. The activities of the entities include: protection from harmful insects, forest rehabilitation, thinning, cleaning, logging, non-timber forest product utilisation.</li> </ul> <p>In the <u>database on combating harmful insects</u> prepared by the FRDC, the number of actions undertaken in this regard at provincial, sub-provincial level, integrated annually.</p> <p><u>State Report on Environment</u> (<a href="https://www.mne.mn/?page_id=542">https://www.mne.mn/?page_id=542</a>):</p> <ul style="list-style-type: none"> <li>- Produced biannually. All information related to state of forest resource are available. Information on forest restoration and conservation activities are available.</li> </ul>	<p>Resource change cannot be reported on an annual basis. Forest resource change shall be reported via OM-2 form on annual basis, however, due to lack of capacity at sub-national level this process is not sustained in accordance with the regulation.</p>

Two main categories of information sources have been identified as relevant for the future SIS:

- (i) *National-level information focused on how safeguards are being addressed.* This includes information on the PLRs identified as relevant for addressing and respecting the safeguards in Mongolia, such as existing PLRs themselves and relevant specific articles that contribute to meeting the Cancun safeguards. Information on gaps and weaknesses within the existing framework, as well as gap-filling measures to ensure stronger compliance with the safeguards, also make up this information type. In addition, this includes information on any REDD+ specific processes that are relevant to addressing the safeguards.
- (ii) *National and sub-national information on how safeguards are being respected.* This information relates to PLRs as well as current and future sources of information related to the monitoring of forest activities and outcomes and REDD+ implementation at national and sub-national level. It consists of narrative and statistical information on how PLRs are being implemented in practice (for example, from government reporting on particular PLRs and relevant databases), along with information on measures to strengthen capacities to improve

implementation. It will also likely include additional information from the monitoring the implementation of the REDD+ National Program (for example, the implementation of processes to ensure stakeholder participation and equitable distribution of benefits/incentives for REDD+).

The results of the assessment of information systems and sources has allowed an initial identification of the main likely sources of information on safeguards in Mongolia (see Table 3).

**Table 3: Key information systems and sources, linked to safeguards**

<b>Safeguard</b>	<b>Main Relevant Information Systems</b>
<b>A</b>	<p>Reports on policies and national programmes related to forest, biodiversity, protected areas, combatting desertification, water, food security, human rights, climate change</p> <p>National database for reporting on Sustainable Development Goals (SDGs)</p> <p>REDD+ National Program documentation</p>
<b>B</b>	<p>Environment Information Center (EIC) databases, e.g.:</p> <ul style="list-style-type: none"> <li>○ Environmental organisations and staff database</li> <li>○ Forest resources database</li> </ul> <p>Forest Resource Development Center (FRDC) national forest inventory and taxation forest inventory</p> <p>MET annual report to Cabinet on Implementation of Environmental Laws</p> <p>State Specialised Inspection Agency: data on violations of environmental laws</p> <p>Glass Accounts data</p> <p>Forest user groups annual activity reports</p> <p>REDD+ National Program documentation and monitoring</p>
<b>C</b>	<p>Administration of Land Affairs Management, Geodesy and Cartography (ALAMGAC) land management database</p> <p>ALAMGAC land-related migration/compensation report</p> <p>Land management plans for the capital city, soum and district (annual)</p> <p>National Human Rights Commission annual reports</p> <p>REDD+ National Program documentation and monitoring</p>
<b>D</b>	<p>EIC databases, e.g.:</p> <ul style="list-style-type: none"> <li>○ Environmental organisations and staff database</li> <li>○ Database for community-based organisations for environmental conservation</li> </ul> <p>National Human Rights Commission annual reports</p> <p>REDD+ National Program documentation and monitoring</p>
<b>E</b>	<p>EIC databases, e.g.:</p> <ul style="list-style-type: none"> <li>○ Environmental impact assessment database</li> <li>○ Forest resources database</li> <li>○ Water resources database</li> <li>○ Land degradation database</li> </ul> <p>ALAMGAC land-related migration/compensation report</p> <p>FRDC databases:</p> <ul style="list-style-type: none"> <li>○ National forest inventory database</li> <li>○ Taxation forest inventory</li> <li>○ Non-timber forest products reporting</li> </ul> <p>Forest user groups annual activity reports</p> <p>REDD+ National Program documentation and monitoring</p>

	National Forest Monitoring System (NFMS)
<b>F</b>	ALAMGAC pasture capacity mapping EIC databases, e.g.: <ul style="list-style-type: none"> <li>○ Forest resources database</li> <li>○ Land degradation database</li> </ul> FRDC databases: <ul style="list-style-type: none"> <li>○ National forest inventory database</li> <li>○ Taxation forest inventory</li> </ul> REDD+ National Program documentation and monitoring NFMS
<b>G</b>	EIC databases, e.g.: <ul style="list-style-type: none"> <li>○ Forest resources database</li> </ul> FRDC databases: <ul style="list-style-type: none"> <li>○ National forest inventory database</li> <li>○ Taxation forest inventory</li> </ul> REDD+ National Program documentation and monitoring NFMS

The assessment of information systems and sources has provided details on existing sources that address information needs. However, it has also indicated where gaps exist. Some weaknesses related to forest resources data, for example, may be dealt with when the National Forest Monitoring System (NFMS) is fully operational. The NFMS, which will combine information from ALAMGAC and FRDC, is expected to provide information most relevant for safeguards E, F and G. Other gaps will require separate action. For example, a number of the databases identified are not updated on a regular basis, mainly due to a lack of human and financial resources. In addition, some important reports, such as those produced by the State Specialised Investigation Agency, are not publicly available. Another challenge is that a number of reports, such as forest management plans, are only paper based, so they cannot easily be incorporated into an online system. Finally, most of the existing reporting is sectoral, and there is a lack cross-sectoral sharing of information.

### 3.3 Institutional arrangements for the SIS

Institutional roles and responsibilities for a Mongolia SIS were first discussed among participants at the aforementioned SIS workshop in March 2018 (Annex 3.1). Starting with a basic list of possible SIS functional roles drawn from the UN-REDD programme guidance, participants proposed an initial list of institutions likely to be involved in the SIS and their mandates and roles. Basic diagrams of possible institutional arrangements and architecture for the SIS were also developed at this workshop.

Following subsequent discussions, one main option was deemed the most practical for further development: the hosting of the SIS at the Environment Information Centre (EIC)<sup>11</sup>. A core group of participants met again in Ulaanbaatar in late May 2018 to add detail to the proposed institutional arrangements.

<sup>11</sup> A unit of the Information and Research Institute of Meteorology, Hydrology and Environment (IRIMHE), under the Ministry of Environment and Tourism (MET).

These arrangements were discussed further at an SIS design workshop held in Ulaanbaatar in June 2018 and at a focused working session on SIS operational requirements (see Annex 3.2 and 3.3 of vol. 2). The proposed institutional arrangements for the SIS are presented below.

**Table 4: Functional roles and responsibilities.**

*This table presents the institutions and organisations most likely to undertake SIS functions– such as information compilation and reporting.*

<b>Institution/organisation</b>	<b>Proposed functional role/s in SIS</b>	<b>Relevant mandate/capacity/other</b>
FRDC	Collecting, entering and updating data on forest sector related to safeguards; analysing/reviewing data.	Compiling, analysing and reviewing all forest sector data
ALAMGAC	Collecting, inputting and updating data on land relevant to the safeguards; analysing/reviewing data.	Compiling, analysing and reviewing all land management data
National Statistics Office (NSO)	Collecting, entering and updating data on socio-economic and sustainable development factors related to safeguards. May also play role in publishing/communicating safeguards information.	Collecting, compiling and communicating data are key mandates of NSO. NSO is responsible for approving data collection format and methodology.
National Emergency Management Authority (NEMA)	Collecting, entering and updating relevant data; analysing/reviewing data.	Provide information on natural disasters, conduct monitoring and evaluation, and disseminate information via media on natural disasters and emergencies (e.g. fires).
State Specialised Inspection Agency (SSIA)	Collecting, entering and updating relevant data; analysing/reviewing data.	Responsible for monitoring on implementation of laws, analysis and dissemination of information on implementation of laws.
Ministry of Finance	Collecting and providing budget and financing information (e.g. on PaMs).	Responsible for allocating budget at national level.
General Police Department	Collecting, entering and updating relevant data; analysing/reviewing data.	Provide information on activities on crimes, including those against environment, conduct monitoring and evaluation, and disseminate information through online system.
National Development Authority	Collecting and providing information on multi-sectoral cooperation.	Ensure coherency and inter-connectedness of national level programmes and policies.
EIC	Provision of environmental data from existing databases; compiling and disseminating information; operate and ensure sustainability of SIS; guide collection/inputting of data	Responsible for operation of environmental information databases as stated in Article 37 of the Law on Environment Protection.
National Committee on Human Rights	Collecting information on human rights related aspects; inputting and updating relevant data; analysing/reviewing data.	Conduct monitoring of human rights related information. Data on number of petitions received and resolution



		is publicly available (personal information is confidential).
Forest Sustainable Development Council and Environment Civil Council of Mongolia	Quality control / review of information.	Collect and conduct monitoring on information related to environment activities, and provide recommendations.
Department of Forest Policy Coordination Department (DFPC), MET	Control of financing for SIS; preparing reports / SOI (e.g. DFPC); approving reports and ensuring implementation of departmental rules.	Ensuring implementation of forest laws and policies at national level.
Climate Change Project Implementation Unit (CCPIU) and/or Department of Climate Change and International Cooperation (DCCIC), MET	Submit the SOI to UNFCCC	CCPIU is responsible for implementing MET's obligations under the UNFCCC; DCCIC responsible for checking final reports before submission

The potential role of civil society organisations in Mongolia's future SIS has also been discussed with stakeholders. The following table outlines potential roles and responsibilities for civil society actors in more detail:

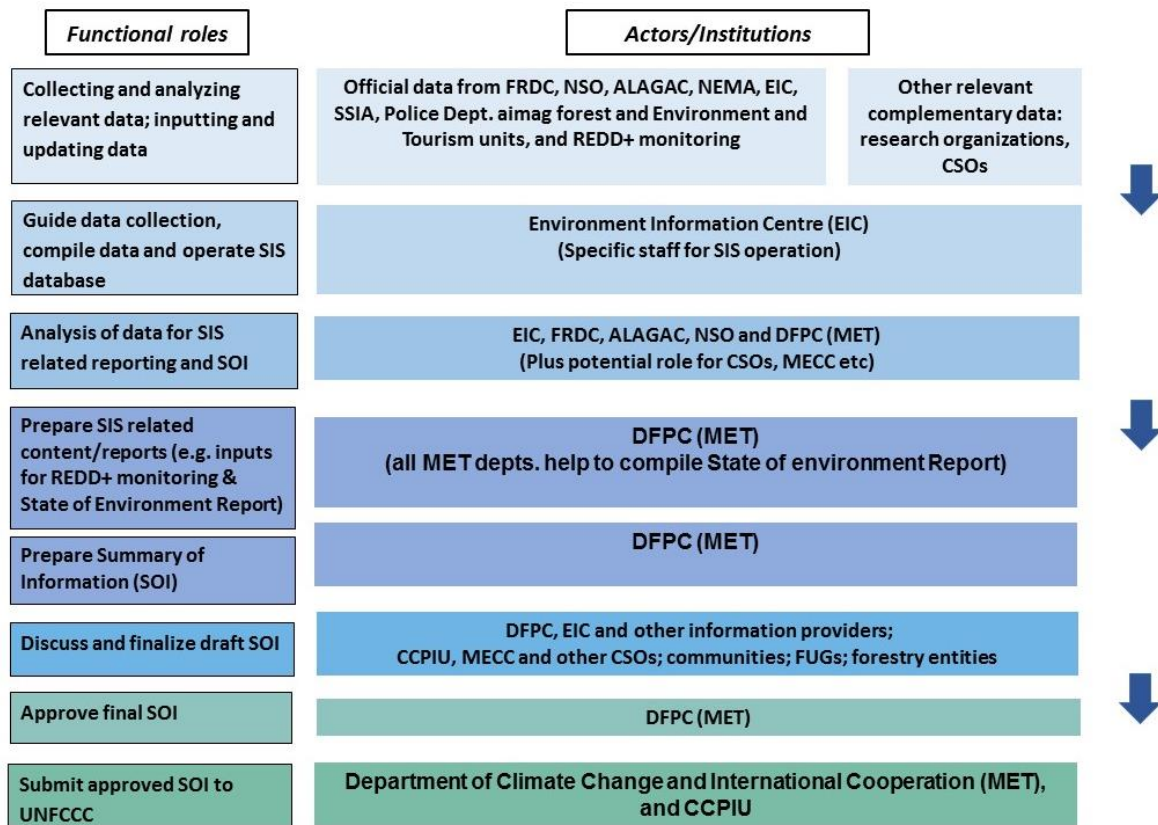
**Table 5: Proposed roles for civil society organisations and actors**

Information provision/collection	Information analysis/review	Information dissemination/communication	Other potential roles
<p>A range of actors are already involved in collecting potentially relevant safeguards information:</p> <ul style="list-style-type: none"> <li>- Member organisations of Mongolian Environment Civil Council (MECC)</li> <li>- Member organisations of Open Society Human Rights forum</li> <li>- Specialised non-government organisations and international NGOs (e.g. conservation NGOs)</li> <li>- Local NGOs</li> <li>- Forest and natural resource user groups, and individual citizens</li> </ul> <p>The relevant information they collect is at local level, though not always on regular basis, and is often disseminated online. It may cover:</p> <ul style="list-style-type: none"> <li>- Environmental degradation (e.g. post-mining restoration status)</li> </ul>	<p>CSOs that currently play a role in analysing/reviewing relevant information include:</p> <ul style="list-style-type: none"> <li>- Member organizations of Mongolian Environment Civil Council and some specialised NGOs are involved in compiling reports and delivering recommendations to MET.</li> <li>- Member organisations of Open Society Human Rights forum deliver recommendations and reports for periodic communications on human rights (e.g. to UN conventions)</li> </ul> <p>These organisations could continue these roles and contribute to SIS, e.g. Open Society forum members can deliver reports on human rights. In addition, communities, forest user</p>	<p>There are CSO organisations that currently receive and disseminate information about forest and environment (e.g. MECC). No clear role in communication on safeguards has been identified so far by stakeholder.</p> <p>Stakeholders suggest there should be a website and hotline where information on safeguards can be uploaded and disseminated. Herders and local people should be able to send written reports if wanted,</p>	<p>Other potential roles for CSOs with regards to safeguards and SIS may include:</p> <ul style="list-style-type: none"> <li>- Provide incentives to NGOs and individuals who implement safeguards. E.g. to those FUGs that achieve good environmental outcomes; for creating/protecting water sources; for those protecting pastureland; for initiatives to change environment conservation behaviour.</li> </ul>

<ul style="list-style-type: none"> <li>- Crimes/violations of environmental laws</li> <li>- Natural disasters</li> </ul> <p>Information about illegal activities are received by the Mongolian Environment Civil Council via website and phone on a regular basis, and annual reports submitted to MET. However, local people and NGOs lack information about who to report violations to. MECC has branches in 21 provinces, but they lack financial capacity to fully operate their website to receive and disseminate information on regular basis.</p> <p>Stakeholders recommend that the participation of CSOs and local people in monitoring can help in detecting violations and other impacts. Budget for CSO/local monitoring should allocated from capital generated from fines and liabilities imposed on illegal activities (via implementation of Article 43 of the Law on Fees for Use of Natural Resources).</p>	<p>groups (FUGs) and forestry entities may play a role in reviewing safeguards/SIS information.</p> <p>More monitoring of project implementation could be done by Environmental Civil Council members (only a few NGOs currently do this). Local and environmental NGOs already report to MET, with such reports enclosed in respective key reports (on pollution, illegal actions against environment). Such monitoring and reporting on addressing &amp; respecting safeguards could be done. Budget is needed to support CSO monitoring (e.g. from Environment Protection Fund).</p>	<p>communication details should be clear and accessible.</p>	<p>The above-mentioned activities should be funded from: 1) Fees on use of natural resources; and 2) domestic and international projects and programmes.</p>
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The following diagram builds on these roles and responsibilities, and sets out the proposed institutional arrangements for Mongolia’s SIS, including which actors would carry out which functions and how these would relate to each other.

**Figure 3: Proposed institutional arrangements for Mongolia SIS**



### 3.4 Approach to the establishment of the SIS database

The discussions with stakeholders and work on the format, functions and technological and other requirements for the SIS indicate that Mongolia will establish two main parts to its SIS: an SIS online database and an online webpage as the public interface for its SIS. Online portals for providing information to the public are commonly used in Mongolia, such as EIC’s multiple online databases ([www.eic.mn](http://www.eic.mn)) and the National Statistics Office’s (NSO) SDG database (<http://sdg.1212.mn>). However, it is also recognised that information on REDD+ and safeguards may also need to use other channels to reach particularly remote communities. Prior to establishing an online database, the REDD+ National Program also has the option to proceed with an excel table-based SIS.

#### 3.4.1 System architecture: an integrated, phased approach

As indicated in section 3.1, the development of the SIS online database and interface will be phased over time, and will be based on the existing EIC platform. Figure 4 below sets out the proposed architecture for this integrated approach. The main features of this approach are:

- An SIS database is prepared in excel and then established on the EIC platform (once this mandate is confirmed and the tasks incorporated into their annual workplan). Content/indicators which require data sourced from the other key online databases are identified. These other key online databases include: EIC’s current databases, such as the Forest Database, Water Resources Database, Land Database, etc; the NSO’s online databases (e.g. on socio-economic statistics, SDGs, etc); and ALAMGAC’s land database. The NFMS also falls within this category.

- Following identification of the relevant data, code is developed to extract that data and copy it into the SIS, placing it within the structure for the SIS. It is recommended that this process begin with priority content/indicators and using data that is considered official and reliable.
- Content/Indicators that rely on data from other sources, particularly those that are not currently online or in electronic format, will also be identified, along with any forms that currently collect that data<sup>12</sup>. New forms will be developed to send the relevant organisations to fill out and submit (potentially upload) to the SIS administrator. The organisations that will provide data this way include NEMA, SSIA and Forest Units at aimag/soum levels.
- Additional information for the SIS (especially for its first interface) will also be drawn from policy and legal documents, REDD+ documents (e.g. National Program document, benefits & risks analysis) and other reports. This narrative text will need to be selected and added to the first version of the SIS; future updating of this information will be straightforward through the content management system of the website.
- The SIS should be updated annually; however, this depends on the source of the data. For example, forest data may be updated annually, while some data from the NFMS on GHG emissions may be prepared every 2 years.
- A webpage for the SIS itself or for its key outputs (e.g. SOI, dashboard) can also be developed. A range of simple, easy-to-use website platforms are available, and EIC currently maintains a large number of publicly available databases on its platform. The final home for this webpage will depend on the future configuration of the national REDD+ website. More discussion on possible webpage features is in Box 3 below).
- At the same time as the development of the database, a regulation for setting up the database on the EIC platform will be prepared, along with a guideline for users. This should cover the structure of the database, the maintenance of the database, how to update information and add new parameters, and the content management system. Introductory training will also be provided.
- The information in the SIS can also be used to prepare reports; the analysis and compilation of such reports is arguably a more human resource intensive activity than the operation of the SIS. Stakeholders in Mongolia suggest that the SIS can contribute to the following: reporting on REDD+ implementation; MET's biannual State of Environment Reports<sup>13</sup>; and the safeguards summary of information for submission to the UNFCCC.
- The database can also allow different levels of access. Depending on the final model chosen, information providers and users may have accounts, allowing them to login to access, input and update information in the SIS.
- The requirements for this SIS model are detailed in section 4 below, but the main elements can be summarised as: a small amount of server space on EIC's servers; a part-time SIS operator/maintenance staff at EIC; and an SIS administrator at MET to monitor content and facilitate reporting.

This integrated approach has strengths and challenges. This is a new approach for Mongolia, as most databases in the country currently operate through the use of forms and either manual data entry or uploading of these forms into the database. It also requires the use of IT solutions. However, using

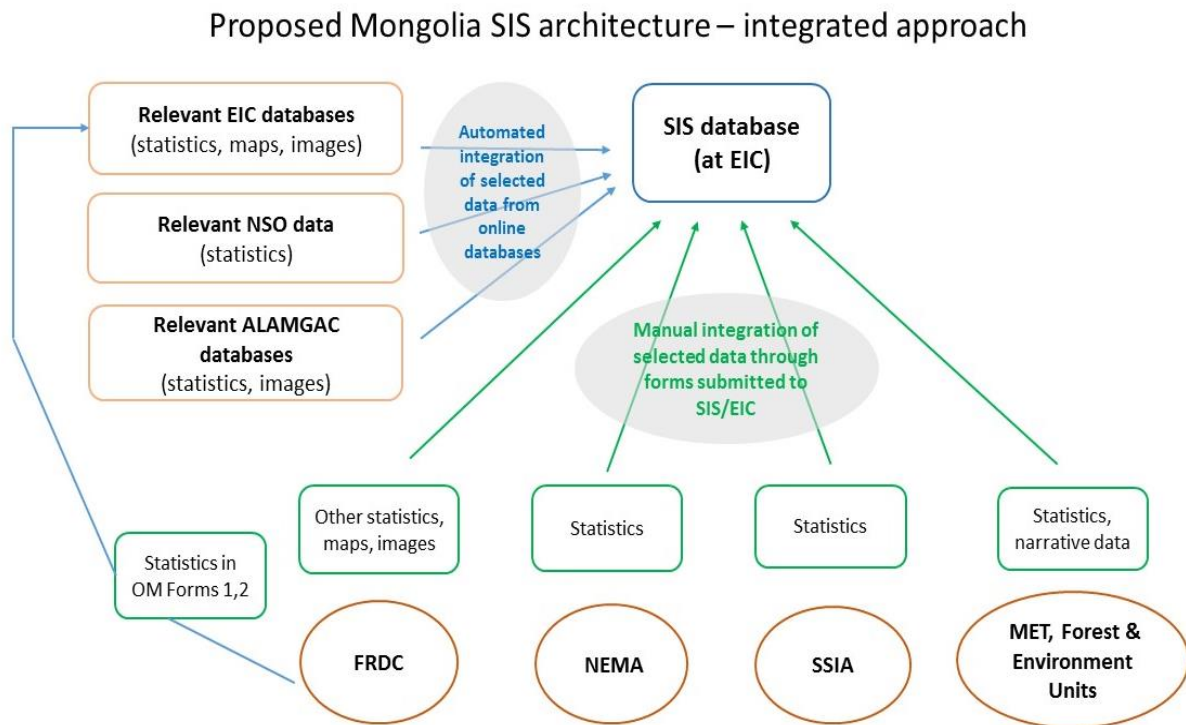
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<sup>12</sup> For example, the forest sector uses 'OM forms' to collect forest data, while ALAMGAC uses 'GT forms'. The forms are usually filled in by officers of the relevant line agencies at local level.

<sup>13</sup> State of Environment Reports are produced every two years by MET, using information from all relevant MET departments, setting out challenges and progress on environmental issues as well as MET expenditure.

this approach the data sourced from other online databases can be updated automatically in the SIS, whenever it is updated in its original location. This can reduce the workload for operating the SIS. A similar process is being considered for the NFMS, e.g. extracting data from ALAMGAC directly into the system on the EIC platform.

**Figure 4: Proposed SIS architecture**



**Box 3: Suggested features for a Mongolia SIS webpage**

Discussions with the TWG-S&SIS and other stakeholders resulted in the following suggestions for an SIS webpage and information dissemination:

- A publicly accessible webpage on safeguards and the SIS should be established
- Users should be able to search and view information on how the safeguards are being addressed and respected, and potentially to download certain outputs (e.g. summaries, tables, maps).
- User should also be able to provide feedback to the responsible agency.
- The webpage should be linked to other relevant websites at national and subnational level, e.g. to the national REDD+ website, the NFMS, aimag office websites.
- Other suggestions for reaching stakeholders, especially in more remote areas, include newsletters and use of social media. The UN-REDD Mongolia National Programme already maintains a number of social media channels.
- The SIS webpage should also collect user statistics for monitoring purposes, i.e. how many visits, downloads, etc.

It is proposed that the SIS online database is developed in **two phases**, matching with the implementation phases the REDD+ National Program:

***Phase 1 SIS: 2019 – 2020***

This first phase will involve the following steps:

- Finalise descriptives and indicators for the SIS in the excel version of the proposed database, ensuring appropriate links with REDD+ monitoring framework.
- Using the information systems assessment tables, identify content/indicators to be sourced from the key online databases (NFMS, EIC databases, ALAMGAC, NSO).
- Select one key database for the initial integration (e.g. NFMS) and secure necessary permissions/approvals to establish the SIS online database within the EIC platform.
- Develop necessary applications to integrate with the first online database and establish it on the EIC platform.
- Following a successful test of the approach, identify remaining indicators where data will come from the other key online databases (e.g. other EIC databases, ALAMGAC and NSO), and proceed with their integration (including permissions/protocols for data sharing as needed).
- Identify content/indicators that will need data collected through existing or new forms, i.e. manually uploaded/inputted to the SIS (e.g. from NEMA, SSIA, etc), and through REDD+ monitoring at national and/or subnational level.
- Preparation of narrative text/descriptive sections for the SIS, and decide format and next steps for webpage or other forms of dissemination for safeguards information (for development in Phase 2).
- Prepare guidance for operation of SIS (for finalisation in Phase 2).

***Phase 2 SIS: 2021 – 2024***

This second phase will involve further integration into the SIS database of other priority data sources and the development of dissemination options (e.g. webpage):

- Continue integration/improvement of data being integrated into the SIS from online sources (e.g. improving the integration of spatial layers);
- Adapt and/or develop forms for the collection of data from other sources (as identified in Phase 1), and put in place any agreements or data-sharing protocols that may be needed with the relevant organisations;
- Test the use of the forms and the integration of the additional data into the SIS, and provide training to agencies and organisations providing data to and using the SIS;
- Proceed with integration of additional data; assess consistency of data and try to address any gaps/problems with data consistency;
- Develop webpage and/or other options for dissemination of safeguard information;
- Explore possible links to any other safeguards systems under development, and consider development of additional content/indicators related to the SIS objectives for this period (i.e. how relevant programmes on climate change adaptation and mitigation in the forest sector are implemented);
- Explore and define the role of civil society in the SIS and SOI processes, e.g. review of information, validation of SOI;

- Finalise the operational guidance for the SIS, incorporating improvements/changes made for Phase 2.

## 4. SIS operational requirements

This section outlines the requirements to operationalise the SIS in Mongolia, including policy and institutional requirements, human resource needs, and technological/equipment requirements. The likely funding levels needed to meet these requirements were also considered. Suggestions for ensuring the long-term operation of the SIS include: utilising existing systems as far as possible, e.g. through the integrated approach; reflecting necessary costs in the REDD+ National Program budget; and ensuring that clear mandates for SIS operation are provided to the identified institutions (e.g. EIC for hosting and the Department of Forest Policy Coordination (DFPC) for administration).

### 4.1 Policy and institutional requirements

There are a number of steps that should be undertaken to ensure a solid policy and institutional framework for the SIS, summarised in Table 6 below.

Mongolia already has a strong record of public data sharing which benefits the SIS; for example, numerous environmental databases open to the public on the EIC website, and an emerging database on the SDGs on the NSO website. Although EIC has an existing mandate to provide environmental data (through the Law on Environmental Protection), it is usual practice in Mongolia to develop a regulation to establish a new database. A permit may also be needed for a SIS/safeguards webpage.

Protocols or agreements with the organisations providing data for the SIS may also need to be developed to ensure that the relevant data can be requested and provided. Capacity development should be included, i.e. the provision of training to these organisations on the SIS and how they can provide data and use the system. These agreements would therefore cover roles, responsibilities, and opportunities for capacity development.

The third key area in terms of institutional requirements is to further define, agree and institutionalise the role of civil society in implementing the safeguards framework, including the SIS and SOI. Numerous recommendations and entry points for civil society engagement have been put forward (see Table 5).

Table 6 lists activities and resource requirements to meet policy/institutional needs:

**Table 6: Steps for meeting policy/institutional requirements for SIS**

Step/activity	Responsible party	Indicative resources
Develop and approve guideline/regulation for SIS database	DFPC, with assistance from EIC	National staff time only
Develop and improve cooperation of relevant organisations for operation of SIS, including data sharing agreements	DFPC, with assistance from EIC	National staff time only
Provision of capacity development opportunities to participating organisations	DFPC, with assistance from EIC	National staff time only; expert/trainer; training costs

Organise permit/approval for webpage	DFPC, with assistance from EIC	National staff time only
Define and agree civil society role in SIS/SOI	TWG-S&SIS	National staff time; TWG-S&SIS meeting costs

## 4.2 Human resource needs

The SIS will require human and financial resources for its operation and maintenance, as well as for analysing and compiling information on safeguards for the preparation of reports, including the SOI. These needs are summarised in Table 7 below.

The operation and maintenance of the SIS database and webpage will require some new human resources (i.e. a database operator for the SIS at EIC), but would largely be covered through other staff at DFPC and MET. This is because the administration of the webpage and the analysis and compilation of information for the SIS for reports would only require some human resources at certain times of the year (e.g. during annual update of the SIS or the preparation of SOI). Existing staff at MET would also be responsible for the approval and submission of SOIs to the UNFCCC<sup>14</sup>.

**Table 7: Human resource requirements for SIS**

Step/activity	Responsible party	Indicative resources
Operation/maintenance of SIS database, including collecting/uploading data and coordinating with other organisations	EIC	1 x new staff to administer SIS database
Server maintenance	EIC	Existing server staff at EIC
Operation/maintenance of webpage	DFPC	National staff time (e.g. REDD+ monitoring or communications officer)
Training on SIS operations for relevant staff of EIC, DFPC and other key organisations	DFPC with assistance from EIC	National staff time; expert/trainer if needed
Analysis of information and compilation of inputs for reporting (e.g. to State of Environment report) and for SOI	DFPC	National staff time (e.g. REDD+ monitoring or communications officer); consultant/writing team for SOI an option
Review, validation and approval of SOI	DFPC; Climate Change & International Cooperation Dept (CCICD) of MET	MET staff for approval of reports/SOI; cost for consultations/engaging civil society in SOI review
Submission of SOI to UNFCCC	CCPIU & DCCIC	National staff time only

<sup>14</sup> SOIs are required by the UNFCCC before results based payments for REDD+ can be received. Thereafter, they should be submitted with National Communications, i.e. a minimum of every 4 years. SOIs can also be submitted on a voluntary basis at any time.



### 4.3 Technical expertise, technology and equipment requirements

There are a number of requirements for specific technical expertise and technology for the operation of the SIS. These are set out in Table 8 below.

In terms of expertise, some additional IT expertise will be needed for the initial establishment of the integrated online SIS database, working with EIC staff to build their capacity at the same time. In terms of technological needs, the SIS is unlikely to require significant storage space. However, REDD+ systems at EIC also include the NFMS, and so upgrading the servers at EIC should be considered. Server specifications expected: LINUX operation system, 4GB RAM, 64GB SSD hard drive. The data can be housed in PostgreSQL<sup>15</sup> at EIC. In addition, some IT equipment will be needed at EIC for continued SIS operations.

**Table 8: Expertise, technology and equipment requirements**

Step/activity	Responsible party	Indicative resources
IT expert advice/supervision of integration of SIS with other online database, i.e. application development	EIC	National IT consultant
Server and server room; contribution to upgrading EIC servers for hosting SIS and NFMS	EIC	Costs for upgrading server
Additional IT equipment at EIC (e.g. computer, printer)	EIC	Costs for IT equipment (computer, printer)

## 5. Recommendations and next steps

This document sets out a proposed model for a future SIS in Mongolia, based on the country's safeguards framework, consultation with stakeholders, and existing priority information systems and sources. It includes detailed information on the proposed information structure (including content/indicators), system functions, roles for relevant agencies and stakeholders, and proposed architecture for the SIS. It also provides information on the steps and resources needed to set up the system.

A number of recommendations are also put forward, in terms of operationalising the SIS in the future. These are summarised as follows:

- As a first step, the activities and budget for setting up and operating the first phase SIS database should be included in the REDD+ National Program document, as SIS is a key element required for REDD+ implementation. A mandate and resources for managing or administering safeguards and the SIS by the agency responsible for REDD+ are also needed.
- Descriptives and initial indicators have been proposed for the SIS. However, these should be further validated, and their integration and consistency with the targets and indicators for more general REDD+ monitoring and evaluation should be considered. The process of preparing content and establishing the first SIS online database will also allow indicators to be streamlined and further improved.

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<sup>15</sup> PostgreSQL is a general purpose and object-relational database management system; it is free, open-source software.

- A clear decision by Government (e.g. MET) is required to request EIC to host the SIS online database. The tasks for establishing and operating this database should also be incorporated into EIC's annual workplan.
- As the REDD+ approach to be taken in Mongolia is further refined (e.g. how REDD+ PaMs will be implemented nationally and subnationally and the likely funding sources) the objectives and design of the SIS may also need to be revisited. This is to ensure that it is well aligned with the REDD+ implementation and monitoring approaches being applied.
- Lastly, the SOI has been discussed briefly in this document as one of the potential outputs using information from the SIS. Should Mongolia wish to seek REDD+ results-based payments, a more detailed workplan for preparing the country's first SOI will be needed, including how the SIS information can be utilised, how the SOI should be reviewed and validated, with the involvement of civil society, and procedures for its approval and submission.



Ойн хомсдлоос  
үүдэлтэй хүлэмжийн  
хийн ялгарлыг  
бууруулах

Reducing emissions  
from deforestation

Ойн доройтлоос  
үүдэлтэй хүлэмжийн  
хийн ялгарлыг  
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Reducing emissions  
from forest degradation

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хуримтлалыг  
хамгаалах

Conservation of  
forest carbon stocks

Ойн тогтвортой  
менежмент

Sustainable  
management of forest

Ойн нүүрстөрөгчийн  
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